



<b>PREFERRED CHEMICAL NAME:</b>		<b>METHANE</b>		<b>CAS #:</b>	74-82-8
<b>Molecular Wt.</b>	16.04	<b>Molecular Formula:</b>	CH <sub>4</sub>	<b>Structural Molecular Formula:</b>	CH <sub>4</sub>
<b>Alternate Chemical Names:</b>		NA			
<b>DOT UN # :</b>	1971 (compressed gas) 1972 (refrigerated liquid)	<b>RTECS # :</b>	PA1490000	<b>NFPA 704: H-F-R-Special Hazard:</b>	1 - 4 - 0
<b>Physical State - Description:</b>		Colorless Gas; Odorless Odor Threshold: 200 ppm			

PHYSICAL DATA					
Property	Value	Source	Property	Value	Source
Melting – Freezing Point:	-296.45°F (-182.47°C) @ 14.969 psia	GPSA	Boiling Point:	-258.74°F (-161.52°C) @ 14.696 psia	GPSA
Critical Temperature:	-116.68°F (-82.6°C)	GPSA	Critical Pressure:	667.8 psia	GPSA
Autoignition Temperature:	999°F (537°C)	GENIUM	Flash Point:	-366°F (-221°C)	PHYS
Lower Flammability Limit:	5.0%	GPSA	Upper Flammability Limit:	15.0%	GPSA
Vapor Pressure:	2 atm @ -242.1°F (-152.3°C)	GENIUM	Vapor Specific Gravity	0.5539	GPSA
Vapor Pressure (estimated):	5000 psia @ 100°F (38°C)	GPSA	(air = 1):		
Liquid Density (weight in vacuum, estimated, apparent value):	2.5 lb/gal @ 14.696 psia @ 60°F (16°C)	GPSA	Vapor Density:	0.04 lb/cu. ft. @ 14.696 psia @ 60°F (16°C)	GPSA
Liquid Specific Gravity (water = 1, estimated, apparent value):	0.3 @ 60°F/60°F (16°C/16°C)	GPSA	Conversion:	1 ppm = 0.656 mg/m <sup>3</sup> 1 ppm = 0.00066 mg/l	CCOHS*

HAZARD OVERVIEWS		
Hazard	Overview	Source
<b>HEALTH</b>	Irritating to skin/respiratory tract. Also Causes: frostbite. A simple asphyxiant which can displace available oxygen needed for breathing.	GENIUM
<b>FIRE</b>	Flammable. Can form explosive mixtures in the air. Extinguish methane fires by shutting off the source of the gas. Use water sprays to cool fire-exposed containers. Treat any fire situation involving rapidly escaping and burning methane gas as an emergency. Use water sprays to cool fire-exposed containers and to protect the personnel attempting to seal the source of the escaping gas.	GENIUM
<b>REACTIVITY</b>	Stable. Hazardous polymerization cannot occur. Avoid: ignition sources (open flames; lighted cigarettes or pipes; uninsulated heating elements; electrical or mechanical sparks); accidental or uncontrollably rapid release from high-pressure cylinders, tank cars, or pipelines. Incompatible with: bromine pentafluoride; chlorine; chlorine dioxide; nitrogen trifluoride; liquid oxygen; oxygen difluoride. Hazardous decomposition products: carbon dioxide; carbon monoxide.	GENIUM
<b>SPECIAL HAZARD</b>	None.	GENIUM

TOXICITY/EXPOSURE INFORMATION					
Data Term	Toxic Limit Value	Source	Data Term	Toxic Limit Value	Source
ERPG-1 :	None Listed	AIHA	TLV TWA :	1000 ppm	ACGIH
ERPG-2 :	None Listed	AIHA	TLV STEL :	None Listed	ACGIH
ERPG-3 :	None Listed	AIHA	PEL TWA:	None Listed	OSHA
IDLH :	None Listed	NIOSH	PEL STEL:	None Listed	OSHA



<b>TOXICITY/EXPOSURE INFORMATION (continued)</b>					
<b>Classification</b>	<b>10 Min Exposure</b>	<b>30 Min Exposure</b>	<b>1 Hour Exposure</b>	<b>4 Hour Exposure</b>	<b>8 Hour Exposure</b>
AEGL-1 :	None Listed	None Listed	None Listed	None Listed	None Listed
AEGL-2 :	None Listed	None Listed	None Listed	None Listed	None Listed
AEGL-3 :	None Listed	None Listed	None Listed	None Listed	None Listed

<b>LISTING OF SUBSTANCE ON PERTINENT SAFETY/ENVIRONMENTAL PROGRAMS</b>						
<b>Y/N</b>	<b>Program</b>	<b>Statute</b>	<b>Regulation</b>	<b>Limits or Values</b>		
N	EPCRA EHS	Section 302 of SARA Title III Emergency Planning	40 CFR Part 355	TPQ:		
				RQ:		
N	CERCLA	Section 304 of SARA Title III Emergency Notification	40 CFR Part 302	RQ:		
N	EPCRA Section 313	Section 313 of SARA Title III Toxic Release Inventory Reporting	40 CFR Part 372			
Y	RMP	Section 112(r) of CAAA 1990 Risk Management Plan	40 CFR Part 68	TQ:	10,000	lbs
Y	PSM	Section 304 of CAAA 1990 Process Safety Management	29 CFR Part 1910.119	TQ:	10,000	lbs
Y	NDEP-CAPP	Nevada Revised Statutes 459.3816 Chemical Accident Prevention Program	NAC 459.9533	TQ:	10,000	lbs

\*See Conversions Page